AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in this application.

LISTING OF CLAIMS:

1. (Currently Amended) A device for sterilization in production of packages, which is adapted for sterilization with a gaseous sterilizing agent kept in the gaseous phase ~~through out~~ throughout the sterilization process, said device comprising a heating zone, a sterilization zone, a venting zone and**[[,]]** means for maintaining a higher pressure in the sterilization zone than in the heating zone and venting zone.

2. (Previously Presented) A device as claimed in claim 1, wherein said zones are separated from each other by means of partitionings having openings for the passage of packages.

3. (Previously Presented) A device as claimed in claim 1, which is adapted for sterilization with a gaseous sterilizing agent in the form of gaseous hydrogen peroxide.

4. (Previously Presented) A device as claimed in claim 1, which is adapted to sterilize packages before filling of the packages, said packages having an open end m and a closed end.

5. (Previously Presented) A device as claimed in claim 4, wherein the heating zone comprises means for heating the packages to a temperature above a dew point of the sterilizing agent used in the sterilization zone.

6. (Previously Presented) A device as claimed in claim 4, wherein the venting zone comprises means for venting away the sterilizing agent used in the sterilization zone from the packages after sterilization.

7. (Previously Presented) A device as claimed in claim 4, further comprising means for controlling a flow of gaseous sterilizing agent in the sterilization zone, such that the gaseous sterilizing agent flows essentially in a direction from the open end of the packages towards the closed end of the packages.

8. (Previously Presented) A device as claimed in claim 7, wherein the means for controlling the flow of gaseous sterilizing agent are arranged to introduce the gaseous sterilizing agent in a top portion of the sterilization zone and to evacuate the gaseous sterilizing agent in a bottom portion of the sterilization zone, maintaining a flow of gaseous sterilizing agent essentially from top to bottom.

9. (Previously Presented) A device as claimed in claim 4, further comprising means for controlling a venting air flow in the venting zone, such that the venting air flows essentially in a direction from the open end of the packages towards the closed end of the packages.

10. (Previously Presented) A device as claimed in claim 9, wherein the means for controlling the flow of venting air are arranged to introduce the venting air in a top portion of the venting zone and to evacuate the venting air in a bottom portion of the venting zone, maintaining a flow of venting air essentially from top to bottom.

11. (Previously Presented) A device as claimed in claim 4, further comprising an ambient temperature sensor for sensing the ambient temperature outside the device.

12. (Previously Presented) A device as claimed in claim 4, further comprising an package heating temperature sensor for sensing the temperature of the packages entering the heating zone.

13. (Previously Presented) A device as claimed in claim 4, further comprising an entry temperature sensor for sensing the temperature of the packages before entry into the sterilization zone.

14. (Previously Presented) A device as claimed in claim 4, further comprising a feedback circuit for controlling the heating in the heating zone based on the temperature of the packages.

15. (Previously Presented) A device as claimed in claim 1, further comprising a condensation detector for detecting condensation in the sterilization zone.

16. (Currently Amended) A device as claimed in ~~any~~ claim 1, which is adapted to sterilize itself internally.

17. (Previously Presented) A device as claimed in claim 16, further comprising means for heating the interior of the device.

18. (Previously Presented) A device as claimed in claim 1, comprising a unit for production of the gaseous sterilizing agent.

19. (Previously Presented) A device as claimed in claim 1, further comprising a filling zone for filling packages, and means for maintaining a higher pressure in the filling zone than in the venting zone.

20. (Withdrawn) A method of sterilizing packages in production of the packages, said packages having an open end and a closed end, wherein a gaseous sterilizing agent is used and kept in the gaseous phase throughout the sterilization

process and a positive pressure is maintained in a sterilization zone in which the sterilization is performed.

21. (Withdrawn) A method as claimed in claim 20, wherein gaseous hydrogen peroxide is used as sterilizing agent.

22. (Withdrawn) A method as claimed in claim 20, wherein the packages are passed into a heating zone where they are heated to a temperature above the dew point of the sterilizing agent.

23. (Withdrawn) A method as claimed in claim 22, wherein the heated packages are passed through an opening in a partitioning separating the heating zone and the sterilization zone into the sterilization zone, where they are subjected to the gaseous sterilizing agent.

24. (Withdrawn) A method as claimed in claim 23, wherein the sterilized packages are passed through an opening in a partitioning separating the sterilization zone and a venting zone into the venting zone, where they are subjected to hot sterile air for venting away the sterilizing agent.

25. (Withdrawn) A method as claimed in claim 23, wherein the gaseous sterilizing agent in the sterilization zone flows essentially in a direction from the open end of the packages towards the closed end of the packages.

26. (Withdrawn) A method as claimed in claim 25, wherein the gaseous sterilizing agent is introduced in a top portion of the sterilization zone and evacuated in a bottom portion of the sterilization zone, so that a flow of sterilizing agent essentially from top to bottom is maintained.

27. (Withdrawn) A method as claimed in claim 24, wherein the venting air in the venting zone flows essentially in a direction from the open end of the packages towards the closed end of the packages.

28. (Withdrawn) A method as claimed in claim 27, wherein the venting air is introduced in a top portion of the venting zone and evacuated in a bottom portion of the venting zone, so that an air flow essentially from top to bottom is maintained.

29. (Withdrawn) A method as claimed in claim 20, wherein the gaseous sterilizing agent is produced by addition of liquid sterilizing agent to hot air.

30. (Withdrawn) A method as claimed in claim 20, wherein an ambient temperature and a concentration of sterilizing agent in the sterilization zone are measured and used for controlling the amount of sterilizing agent introduced in the sterilization zone.

31. (Withdrawn) A method as claimed in claim 22, wherein an ambient temperature is measured and used for controlling the heating in the heating zone.

32. (Withdrawn) A method as claimed in claim 22, wherein a temperature of the packages entering the heating zone is measured and used for controlling the heating in the heating zone.

33. (Withdrawn) A method as claimed in claim 22, wherein a temperature of the packages just before they are passed into the sterilization zone is measured and used for controlling the heating in the heating zone.

34. (Withdrawn) A method as claimed in claim 29, wherein the temperature and flow of air for production of the gaseous sterilizing agent is controlled based on detection of condensation in the sterilization zone.

35. (Withdrawn) A method as claimed in claim 24, wherein a higher pressure is maintained in a filling zone for filling vented packages than in the venting zone.